STUDENTS' SKILLS COMPETENCY ASSESSMENT MODELS ON VOCATIONAL HIGHT SCHOOL (SMK) IN CENTRAL JAVA

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Abstract

This study aims to describe the students' skills competency assessment models on Vocational Hight School (SMK) in the machining program. The method used was descriptive with a population on Vocational School in the machining program in Central Java, while a purposive sampling . The results obtained in Central Java there was three models. The first model (01) was a widely used, where the model was a whole set of management competency test from planning, organizing, implementing, reporting and evaluation set by Kemdiknas in this case is BSNP and DPSMK. Industry's role in planning at the level of the education (SMK) does not exist, only the involvement of assessors at the end of the competency test and certification expertise. The second model (02) is a model of the whole set of management competencies and certification test starting from planning, organizing, implementing, reporting and evaluation set by Kemdiknas in this case is BSNP / DPSMK; but to take advantage of the vocational school assessment potential in the production unit (UP) as a substitute for the role industry. Assessment are applied to the pattern: (a.) The test material as needed UP, (b) The material used as required UP, (c) Instructor Assessor by the UP and (d) Results / workpiece was used by the UP. The third model (03) was SMK that has a teaching factory as representation of the industry. At the planning stage for a test of competence: (a) Content Test, assessment criteria, as required graduation standards UP, (b) The material used as required UP, (c) Instructor Assessor by the UP and (d) Results / workpiece was used by UP.

Keywords: Students' skills Competency, Assessment Models, Vocational Hight School (SMK), The Machining Program.

1. Introduction

Including the organization of vocational education Vocational School (SMK) is entering a crucial phase, the phase in which the graduates of vocational education will stake its readiness in the workfore of labor in regional and global levels, both in the context of China-Asean Free Trade Agreement (C-AFTA) and the Asean Free Labor Agreement (AFLA), and demands the use of technology based on new findings for productivity efficiency requires that its renewable competence. As recommended by Paryono (2006: 55) to the policy makers that in order to improve the image, vocational education programs must be responsive to labor market needs and technological advances as well as vocational education should be more proactive in developing its program. Similarly, Enoch (1992: 90) asserted that in educational planning approach uses the concept of education for employment, in which attempts to direct the educational activities to meet national needs / areas for labor. Approach prioritizes linkages graduates with employment needs, both in terms of the number (quantity) and quality (quality).

Coombs in Gunawan (2006: 4) explains that the quality of vocational education if the students who have experienced the educational process is unacceptable in the workplace according to their expertise. Based on these statements can be argued that the SMK as a producer of graduates should be able to make each individual student has the ability, skills and expertise relevant to the demands and needs of the workforce. Thus, vocational education can not be separated from the development of the existing world of work. Development of marketable labor must be performed by the vocational education based on the needs of the market (demand driven) through increased competency.

Statistics February 2011 (BPS, 2011: 39) suggests that the formation of industrial sector employment reached 13.71 million (12.32%) of the total number of 111.28 million people work. This suggests that the labor market needs in the industrial sector is still quite large and these conditions provide opportunities for vocational skills especially in the fields of Technology and Mechanical Engineering Machining competency skills to be able to take part in the fulfillment of labor in Indonesia. In Central Java in 2008, the number of state and private vocational school graduates in Central Java between 95% to 100%, of the passing range that is absorbed into jobs that match the skills program is 30% to 50%, the waiting period to get a job The first average is 1-6 months, the rest went to the university, as well as some unknown activities. Graduates of the vocational areas of study skills and Engineering Technology in Mechanical Engineering courses

required by the industry is the operator manual machine tools, CNC machine operators, electric welding, argon welding, and metal casting, in addition to that the soft skills needed in the form of persistence, commitment, discipline , as well as the ability to work together (team work) (Balitbangda Central Java, 2008: 21).

Graduation standards imposed on schools is the students' skills competency assessment by standards created by BSNP (BSNP under the Ministry of National Education), while the business / industry has a Indonesian Standards of National Occupational Competency (SKKNI) developed by the Department of Labor, so that two standards should be met to avoid the "mismatch" between competence skills produced by education with competency skills needed by the world of work. Standardized difference is also related to (a) type of work that is real (real world) while the school is the practice of simulation, (b) the quality of jobs in the industry is measured by accepted or rejected, while schools with a number (0-100), and (c) the risk of financial failure, while at school is still a lot of tolerance for repeat job (Sidi, 2000: 3).

The students' skills competency assessment vocational are expected to meet the standards implemented (relevance) World Business / Industry so that vocational graduates could be absorbed by a short waiting period, up to the challenge of global competence and the needs of current and student's copetency assessment can be reached by learners. Specific competencies based on the spectrum of machining engineering expertise SMK (Mustagfirin, 2009: 25) This skill competencies provide a very important role in technology and industry, and based International Labor Organisation (ILO, 2008: 46) pointed out that 53.4% of students in the field of potential technology and industry, while the other fields of tourism by 7.0%, livestock 0.4%, agriculture 1.5%, business and management 35.3%, 1.4% of social work, fishing for 0, 3%, and arts and crafts by 0.4% and in the structure of the work until the year 2007 the manufacturing sector by 12.4% of sector employment is available.

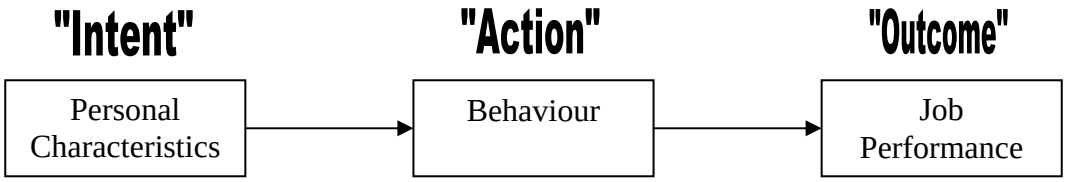
1.1 Competency

The word 'competence' is reviewed from the perspective of estimology derived from the competent or capable. The word can mean a capability or expertise to do a job or activity. Broader review of the competencies associated with the word labor terminology, is an ability/skills based on knowledge, skills and attitude to do a job. Some definitions related to the definition above, among others: "Competence" is defined as a combination of relevant skills, understanding and ability knowledge and to apply them ". (National Vocational Qualifications (Nvqs), United Kingdom). (Dit. Dikmenjur, 2002:3). Competence can be defined as the ability of individuals to show their work in accordance with required standards. In a more specific, competence can be defined as the capacity, qualifications or behavior brought about an employee / staff to carry out its duties and functions effectively. Australian National Training Board (NTB) to explain more about the competencies are:

Competencies bring all these elements of task, skill and knowledge together and add a performance standard. Thus a competency is written in the form of a task to be carried out, the skill required to do it and the standard to which the task must be performed. …… competencies can be motives, traits, self-concepts, attitudes or values, content knowledge, or cognitive or behavioural skill -any individual characteristic that can be measured or counted reliably and that can be shown to differentiate significantly between superior arid average performers, or between effective and ineffective performers (Smith,1995:97). Furthermore, Spencer and Spencer (1993: 11), categorized the competencies into two threshold competencies and differentiating competencies,

Threshold competencies. These are the essential characteristics (usually knowledge or basic skills, such as the ability to read) that everyone in a job needs to be minimally effective but that do not distinguish superior from average performers. A threshold competency for a salesperson is knowledge of the product or ability to fill out invoice……

Differentiating competencies, these factors form the superior distinguish average performers. For example, achievement orientation expressed in a person's setting goals higher than Those required by the organization, is a competency differentiates superior form That average salesperson. By using these two criteria, graduates of vocational competence can be directed to the two goals of minimal competence to perform the work (performance) and other professional competencies can be developed for the promotion of important positions. Competence can be linked to performance, with an indication of motive, character, self-concept, knowledge and skills that characterize the individual. Competence can influence behavior in the act and the impact on the performance in office. Chronology of competence described above is shown in Figure 1, starting from the expected personal characteristics (intent), the behavioral act (action), and impact (outcomes) on the performance of the work.



Motive
Trait
Self-concept
Knowledge
Skill

Figure 1. Competency casual flow model (Tjerk Hooghiemstra, 1992)

Currently, the concept of competence is increasingly being used in a wide range of organizations, especially in educational institutions and business organizations, and is believed to be part of the renewal approach to education and human resource development. According to Parry (1996: 50), the dimensions of competence distinguished competencies (soft competence) and hard (hard competence). Competence refers to the ability of the hardware-specific, based on the knowledge and skills related to work, whereas the soft competence refers to the personal qualities, values, and disposition. Competence and performance of software affects the performance of a person, but is considered as a dimension that can not be built through learning and training. In more detail Spencer & Spencer (1993:9-11) there are five dimensions in detail the competence, namely: (1) motive (motive), (2) disposition (trait), (3) the concept of self (self-concept); (4) knowledge (knowledge), and (5) skills (skills). In the chart, Spencer & Spencer called it a model of the iceberg (The Iceberg Model) or the core and surface models (Central and Surface Competencies).

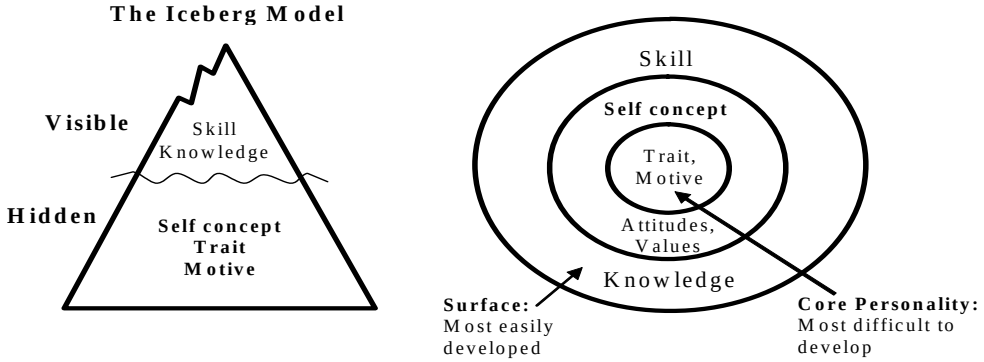


Figure 2. The Iceberg Model, and Surface and Core Competencies (Spencer & Spencer, 1993: 11)

In this model described the dimensions of knowledge and skills that are visible on the surface (surface) and more easily developed through learning (teachable). Learning and training is the most effective way to develop this dimension. Instead dimensional motives, traits, and self-concept is a fundamental dimension, and more difficult to develop through training and learning (non-teachable). In the context of vocational competency development, it is necessary in a comprehensive assessment of competence leads to competence (soft-competence) and hard (hard-competence). Competence of graduates of vocational high schools thus have a sense of ability or competence of graduates work based upon the knowledge, skills and attitude to do a job, a measurement using a specific reference (criterion-referenced).

1.2 Competency-Based Assessment (CBA)

According to Australia's National Training Framework (NTF), competency-based assessment is defined; whether a person has the skills, knowledge and experience required to perform specific tasks in the workplace, or to gain credit vocational education and towards a qualification training or course. Assessment is based on industry determined competency standards. Meanwhile, according to Cumming (2004), the factors that influence the success of assessment in vocational

education include: (1) a strong curriculum base Influencing assessment, (2) the incorporation of school-based assessment in all certification, (3) preference for standards- referenced assessment, real respect for teacher judgment, (5) Increasing vocational education delivery within schooling, (6) multiple pathways to future study and careers, (7) school-based assessment in the compulsory years of schooling, (8) moves towards outcomes-based frameworks, (9) issues Relating to national benchmark data, and (10) equity issues.

According to the Ministry of Education (2004:1), the purpose of competency-based assessment of learning outcomes include: (a) provides a reference tool evaluation study of students in accordance with curriculum-based vocational competence (Competency-based curriculum), (b) improve the quality of assessment study of students either directly related to the learning process in schools and in industry, as well as those relating to the assessment of mastery of competencies, (c) develop a model of competency-based assessment (competency-based assessment) which involve an element in the implementation of relevant internal and external. Assessment of learning outcomes in the learning system is basically a competency determination process to ensure that learners are already competent or not competent. The determination is carried out by the evidence compare learning outcomes (learning evidence) obtained a learner with the performance criteria (performance criteria) set forth the standard of competence

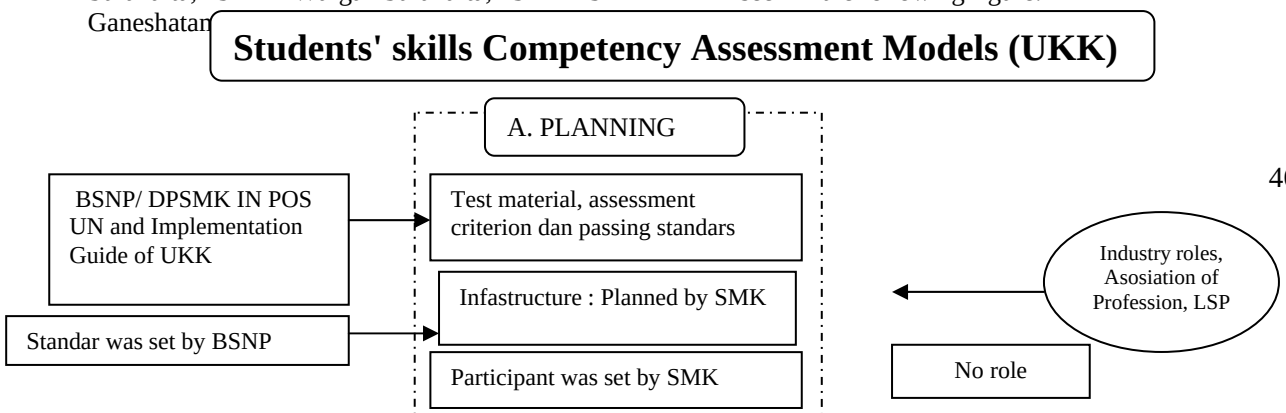
2. Method

The method used is descriptive method. The subject is the Vocational School (SMK) Mechanical Machining expertise competence in Central Java. While the sample is taken with the principle of purposive sampling is based on a model category that was formulated by the Ministry of National Education (Depdiknas, 2004: 5) and based on the pre survey that has been done then the sample is determined to be 3 group implement vocational competency assessments and certification: (1) shall by the school along with industry is a partner institution, (2) held industry that has national recognition, and (3) conducted by the Institute of Professional Certification. So that the sample is N 7 Semarang SMK, SMK N 4 Semarang, SMK 2 Adiwerna Tegal, SMK 2 Navan, SMK Michael Surakarta, SMK Warga Surakarta, SMK SMK Ganeshatan

Data collection tools and techniques used are: (1) questionnaire, was used to reveal (ask) the understanding of the implementation of the competency assessment and certification expertise, models are implemented, carried out assessment student competence and certification expertise, relevance and competence generated and the contributing factors inhibitors, either through open-ended questions (open question) or closed (closed question), (2) check-list, is used to observe the passing standards and SKKNI, benchmark assessments and certification of skills competency testing of students, as well as enabling and inhibiting factors to the achievement of achievement of competence, (3) interview, used to support / complement the disclosure of the model is applied, especially input from stakeholders in order to formulate skills model competency assessment and certification of students effectively and efficiently, (4) documentation, used to support the disclosure of the entire model , especially documents used in student skills competency assessment. Target field data collection and triangulation of data is to reveal the described purpose of the competency assessment models of existing expertise, while the description and analysis (meta analysis) findings (model) is used as a reference in formulating the design of the model (factual / existing).

3. Results and Discussion.

Research in order to find a model that has been done on the existing vocational skill competency Machining Techniques in Central Java has been able to reveal any models. There are 3 (three) model of vocational competency assessments students' skills competency skills Machining Techniques. Of the three models can be explained as follows. The first model (01) is a model formulated by the Ministry of Education and Culture, where the model is a whole set of management competencies and certification assessment starting from planning, organizing, implementing, reporting and evaluation set by Kemdiknas in this case is BSNP/POS UN publishes by DPSMK and technical guidelines. The role of industry the planning at the unit level of education (SMK) does not exist, only the involvement of assessors at the end of the competency assessment and certification expertise. Model 01 is more widely used by SMK, and for more details can be seen in the following figure.



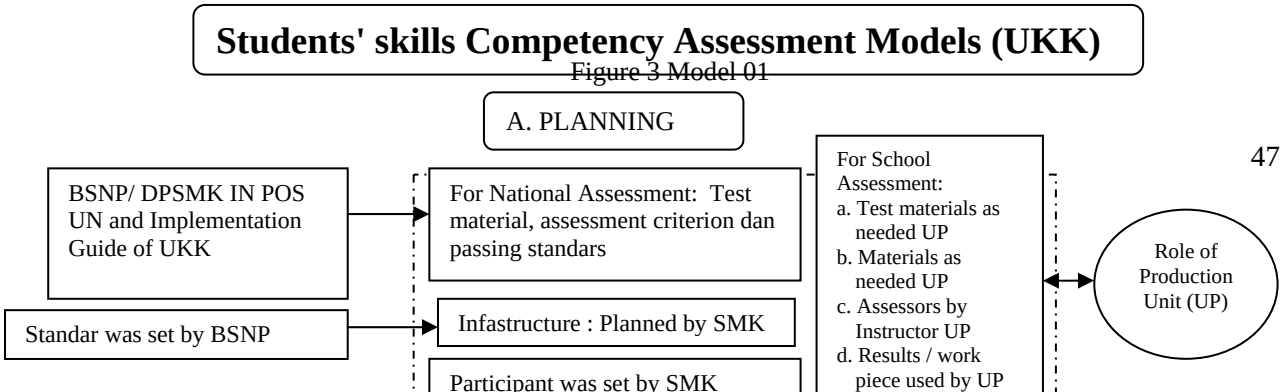


Figure 3 Model 01

Figure 3.

Figure 3. Model 01

Figure 4 Model 02

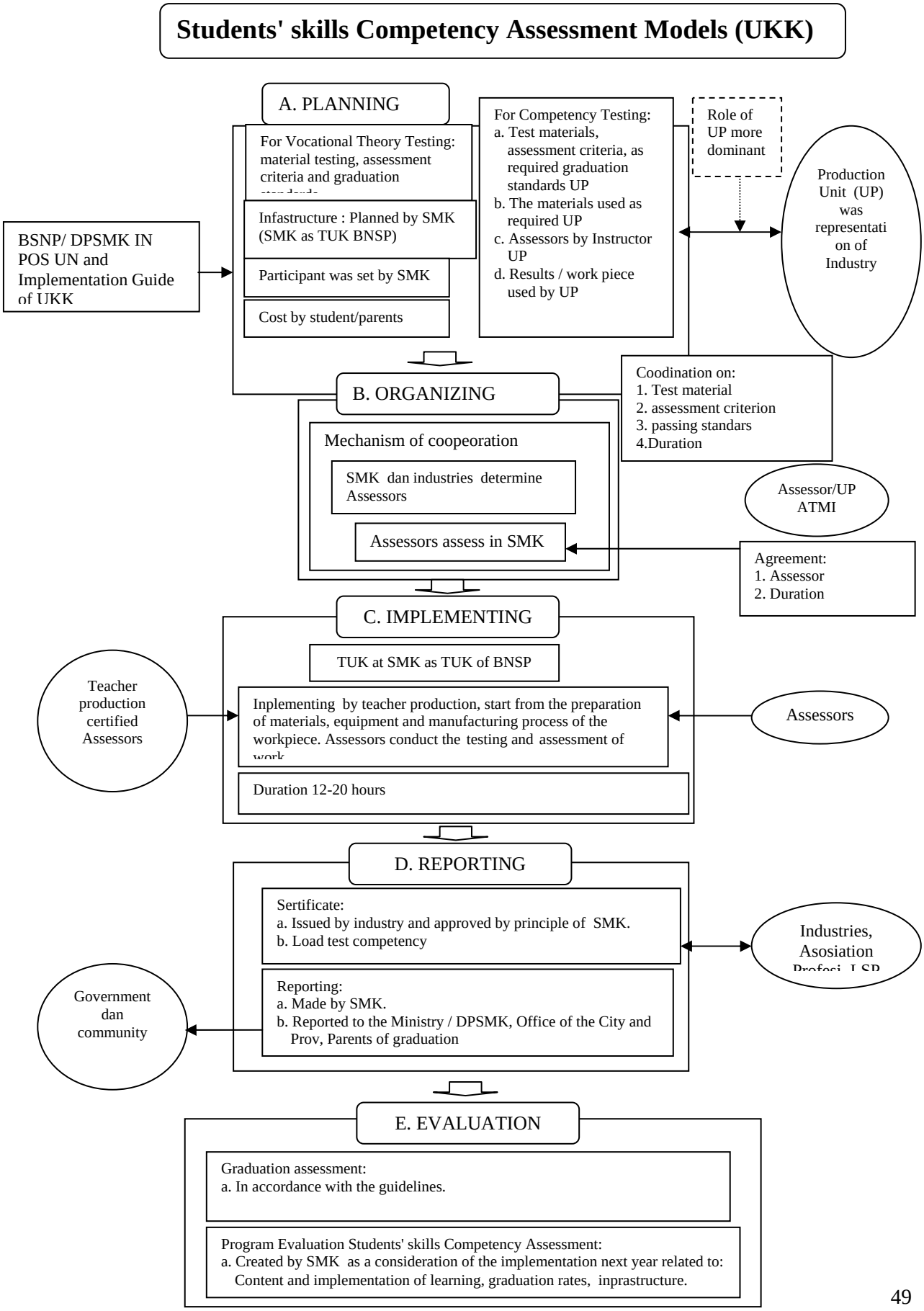


Figure 5 Model 03

The second model (02) is a model of the whole set of management competencies and certification assessment starting from planning, organizing, implementing, reporting and evaluation set by Kemdiknas in this case is BSNP / POS UN and the technical guidelines issued UKK: but to take advantage of the planned school exams potential in the production unit (UP) in the SMK. UP who has worked both as a substitute for the role of industry the planning, especially for the competency assessment conducted by the school outside the National Exam. Exams are applied to the pattern: (a.) The assessment material as needed UP, (b) The material used as required UP, (c) Instructor Assessor by the UP and (d) Results / work piece is used by the UP.

The third model (03) is a teaching model that has a factory as represesntasion of industry. In addition workshops have been defined as owned by TUK- BNSP. At the planning stage for a assessment of competence: (a) Content Assessment, assessment criteria, as required graduation standards UP, (b) The material used as required UP, (c) Instructor Assessor by the UP and (d) Results / work piece is used by UP. UKSK done by the exercise of its Earning a Master Assessor from the preparation of materials, tools and processes of manufacture, testing and evaluation of the work. Certificate issued by the industry a note by the Head of SMK that includes competencies tested while passing judgment in accordance with the guidelines, with input: Value of School Practice Exams, Exam Skills Theory and Practice Exams Practice Areas. For more details, both models can be observed on the following figure.

4. Conclusion

Model of competency assessment students' vocational skills competency on Machining Techniques in Central Java can be summarized as follows:

a. There are three models of competency assessment vocational students in Central Java.
b. The model most widely used model is a whole set of management competencies and certification assessment starting from planning, organizing, implementing, reporting and evaluation set by Kemdiknas in this case is BSNP / POS UN, DPSMK and the technical guidelines issued UKK. The role of industry. In the planning at the unit level of education (SMK) does not exist, only the involvement of assessors at the end of the competency assessment and certification expertise.
c. The second model is the model that have tapped the potential that exists on the production unit (UP) in the SMK. UP who has worked both as a substitute for the role of industry the planning, especially for the competency assessment conducted by the school outside the National Exam.
d. The third model is a model that emphasizes the role of teaching factory or production unit (UP) as representation of industry at any stage. Competency exam at the planning stage: (a) material testing, assessment criteria, as required graduation standards UP, (b) The material used as required UP, (c) Instructor Assessor by UP and (d) Results / work piece used by UP . The exercise of skill competency assessment conducted by Guru Earning its assessors start of preparation of materials, tools and processes of manufacture, testing and evaluation of the work.

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